

Previous HSE Questions from the chapter "POLYMERS"

1. Name the linear polymer formed during the condensation polymerisation between phenol and formaldehyde. (1)
2. Explain homopolymers and copolymers with examples. (2) [SAY 2018]
3. What is the cross-linked polymer obtained by the polymerisation of phenol and formaldehyde? (1)
4. Match the following :

(a)	Polyacrylonitrile	(i)	Terylene
(b)	1,3-Butadiene-Acrylonitrile	(ii)	Natural rubber
(c)	Ethylene glycol-Terephthalic acid	(iii)	Buna-N
(d)	Cis-1,4-polyisoprene	(iv)	Acrylan



- (2) [March 2018]
5. a) Distinguish between thermoplastic polymers and thermosetting polymers. (1)
b) Name the monomers in the following two polymers.
i) Nylon 6,6 ii) Buna-N (2) [SAY 2017]
6. a) Which of the following is not applicable to Nylon 6,6.
i) Synthetic polymer ii) Fibre iii) Addition polymer iv) Condensation polymer (1)
b) Differentiate between thermoplastics and thermosetting plastics. Write one example each to them.
(2) [March 2017]
7. Polymers are of different types.
a) Identify the thermoplastic polymer from the following:
i) Bakelite ii) Nylon-6,6 iii) Neoprene iv) PVC (1)
b) What are biodegradable polymers? Write an example. (2) [SAY 2016]
8. Polymers can be classified based on molecular forces.
a) Classify the following polymers into elastomers and fibres:
Rubber, Nylon 6,6, Buna-S, Terylene (1)
b) What do you mean by thermosetting polymers? Give one example. (2) [March 2016]
9. Polymers are classified into elastomers, fibres, thermoplastics and thermosetting plastics depending on the intermolecular forces. Fill in the vacant places given below:

Types of Polymer	Polymer	Monomer
Thermosetting Plastic	(i)	Phenol and formaldehyde
(ii)	Natural Rubber	(iii)
(iv)	(v)	Caprolactum
(vi)	Polystyrene	Styrene

(3) [SAY 2015]

10. Polymers are macromolecules formed by union of monomers.
a) Name one natural polymer and synthetic polymer. (1)
b) Distinguish between thermoplastic and thermosetting plastic with example. (2) [March 2015]
11. a) Write any two differences between step growth and chain growth polymerisation. (2)
b) what are the monomers of the following:
i) Neoprene
ii) Nylon – 6 (1) [March 2014]
12. a) Name two thermoplastics. (1)
b) Nylon 6,6 and Dacron are two synthetic fibres. Suggest the monomers of each. (1 x 2 = 2) [SAY 2014]
13. Natural rubber obtained from rubber latex is soft and sticky.
a) Suggest a method to improve the stiffness of rubber. (½)
b) Explain the above method. (1½)

- c) Classify the following into natural and synthetic polymers: Nylon, Starch, Cellulose, PVC (1)
[SAY 2013]
14. a) Synthetic rubber is a Vulcanisable rubber like polymer.
i) Write one example for synthetic rubber. (½)
ii) Write the method of preparation of the above synthetic rubber. (1)
b) Which are the monomers of Nylon-6 and Nylon-6,6 ? (1½) [March 2013]
15. PVC, Bakelite and polythene are plastics.
a) Classify the above plastics into thermoplastics and thermo-setting plastics. (1½)
b) Name the monomer units of PVC and Bakelite. (1½) [SAY 2012 & SAY 2008]
16. a) Rubber is natural polymer obtained from the bark of rubber trees.
i) Name the monomer of natural rubber. (1)
ii) Vulcanisation improves elasticity of rubber. What is vulcanisation?(1)
iii) Write two examples for synthetic rubber. (1) [March 2012 & 2010]
17. Monomers polymerise to form polymers. Polymers can be classified in many ways.
a) Distinguish between homopolymer and co-polymer. (1)
b) Give the name or formula of the monomers in the following polymers:
i) Nylon-6,6 ii) Dacron (2) [SAY 2011]
18. a) LDPE is a homopolymer, while Nylon-6,6 is a co-polymer. Explain? (2)
b) Classify the following into homopolymer and co-polymer: Nylon-6, HDPE (1) [March 2011]
19. Based on the mode of polymerisation, we can classify polymers into addition and condensation polymers.
a) Classify the polymers given below into addition polymers and condensation polymers.
Terylene, PVC, Bakelite, polythene (2)
b) How will you prepare Nylon-6,6? (1) [March 2010]
20. Teflon is commonly used addition polymer.
a) What is Teflon? (1)
b) Mention any two uses of it. (1)
c) Name two other addition polymers. (1) [March 2009]
21. The rubber gets stiffened during the treatment of rubber with one solid element.
a) Name the process. (1)
b) Which element is used in the above process? (1)
c) What is the mechanism of stiffness? (1) [SAY 08]
22. Nylon-6 and Nylon-6,6 are polymers. What is the difference between the two notations? (3) [SAY 08]
23. Addition polymerisation is used for the production of important polymers.
a) Give one example for the addition polymer. (1)
b) What is the mechanism in addition polymerisation? (2) [March 2008]

